

$$\frac{d}{dx} \frac{y}{\sec 4x} = \sec^3 4x \quad = 3 \sec^2(4x) \times \frac{d}{dx} \sec(4x)$$

$$\sec 4x \tan 4x \quad = 3 \sec^2(4x) \sec(4x) \tan(4x) \times \frac{d}{dx} 4x$$

$$= 3 \tan(4x) \sec^3(4x) \times 4 \times \frac{d}{dx} x$$

$$= 12 \tan(4x) \sec^3(4x) \times 1$$

$$= 12 \sec^3(4x) \tan(4x)$$

$$\frac{d}{dx} y = (x + \sin 2x) \quad x, 1$$

$$= 2 \cos 2x + 1 \quad \sin 2x, 2 \cos 2x$$

$$u \cdot y = \frac{1-10x}{(2x-1)^2} \quad \frac{u}{v} = \frac{(u' \cdot v) - (u \cdot v')}{v^2} \quad u = 1-10x$$

$$v = (2x-1)^2$$

~~$$\frac{d}{dx} \frac{1-10x}{(2x-1)^2} = \frac{(1-10x)' \cdot (2x-1)^2 - (1-10x) \cdot (2x-1)^2'}{(2x-1)^4}$$~~

$$= \frac{2 \times (10 \times x + 3)}{(2 \times x - 1)^3}$$